

pausal pill to control dysfunctional bleeding and hot flushes. If this was an accepted prophylactic many women would avoid hysterectomy for dysfunctional bleeding. Then after the age of 52 the postmenopausal pill containing even less oestrogen would, could, and maybe should be taken for many years to reduce the chances of myocardial infarction and osteoporosis. All this is I suppose contingent on women giving up smoking cigarettes.

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SIR,—I would like to comment on two aspects of the leading article by Dr J C Stevenson and Dr M I Whitehead (28 August, p 585). They strongly advocate the use of long-term oestrogen preventive treatment and accuse doctors of managing the condition "too conservatively." It is important to try to balance the risks against the benefits of treatment.

Benefits although real may not be so great as is claimed. We have at present only three patients out of a practice population of 8300 suffering from disabling clinical osteoporosis: two secondary to rheumatoid arthritis and one to prolonged treatment with corticosteroids. Limb fractures are much commoner, and perhaps half of these could be prevented by oestrogens.

Against these benefits must be set the possible complications of treatment. I do not agree that "The risks of oestrogen treatment have been overstated." A multicentre long-term surveillance of mortality and cancer incidence is in progress under Professor Vessey of the department of community medicine and general practice, Oxford. Most family doctors would prefer to await the conclusions of this research before exposing their patients to unknown risks.

Calcium supplements offer an alternative form of treatment which is probably safe and certainly cheaper. Two studies have shown that calcium is at least partly effective in the treatment of osteoporosis. One of the references quoted by Dr Stevenson and Dr Whitehead<sup>1</sup> in fact showed that calcium was intermediate in effect between oestrogen and placebo. A further study supports this view.<sup>2</sup>

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<sup>1</sup> Horsmann A, Gallagher JC, Simpson M, Nordin BEC. *Br Med J* 1977;iii:789-92.

<sup>2</sup> Albanese A, Edelson A, Lorenze E, Woodhall M, Wein E. *NY State J Med* 1975;75:326-36.

SIR,—Two of the recently suggested aetiological factors and possible agents for treatment of osteoporosis not mentioned in the article by Dr J C Stevenson and Dr M I Whitehead (28 August, p 585) are copper and vitamin K.

The link between copper and osteoporosis has been suggested by animal and human data. Copper deficiency in animals has been shown to lead to increased absorption of bone and histological changes similar to those found in patients with osteoporosis.<sup>1</sup> Similarly, bone changes have been noted in infants with copper deficiency, and these revert to normal on copper replacement.<sup>2</sup> Although no study so far has looked at copper in patients with postmenopausal osteoporosis, it has been

suggested that such a link should be investigated.<sup>3</sup>

The importance of vitamin K in osteoporosis is suggested by the fact that vitamin K is an essential cofactor for the microsomal enzyme carboxylase, which converts glutamic acid to  $\gamma$ -carboxyglutamic acid,<sup>4</sup> which is present in the matrix of the bone.<sup>5</sup> The  $\gamma$ -carboxyglutamic-acid-containing protein in the bone, osteocalcin,<sup>6</sup> has calcium-binding sites.<sup>7</sup> In vitamin K deficiency it has been shown that glutamic acid is not carboxylated and the non-carboxylated sites exhibit very weak reaction with calcium ions.<sup>7</sup> The facts which support its use in osteoporosis are: (1) vitamin K reduces calcium excretion in patients with osteoporosis<sup>8</sup>; (2) increase in osteocalcin results in increase in bone density<sup>9</sup>; (3) osteoporosis of old age or that associated with steroid treatment exhibits increased urinary  $\gamma$ -carboxyglutamic acid, which reflects increased breakdown of osteocalcin, the vitamin-K-dependent protein.<sup>10</sup>

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<sup>1</sup> Baxter JH, Van Wyk JJ, Follis RH. *Bull Johns Hopkins Hosp* 1953;93:25-31.

<sup>2</sup> Ashkenazi A, Levin S, Djaldeiti M, Fishel E, Benvenisti D. *Paediatrics* 1973;52:524-33.

<sup>3</sup> Golden MHN. In: Exton-Smith AN, Caird FI, eds. *Metabolic and nutritional disorders in the elderly*. Bristol: John Wright, 1980:45-57.

<sup>4</sup> Larsen AE, Suttie JW. *Proc Natl Acad Sci* 1978; 75:5413-6.

<sup>5</sup> Stenflo J. *J Biol Chem* 1973;248:6325-32.

<sup>6</sup> Houschka PV, Lian JB, Gallop PM. *Trends in Biochem Sci* 1978;3:75-8.

<sup>7</sup> Stenflo J. *J Biol Chem* 1972;247:8167-75.

<sup>8</sup> Tomita A. *Clin Endocrinol* 1971;19:731-6.

<sup>9</sup> Lian JB, Reit B, Roufosse AM, Glimcher MJ, Gallop PM. In: Suttie JW, ed. *Vitamin K metabolism and vitamin K dependent proteins*. Baltimore: University Park Press, 1970:237-44.

<sup>10</sup> Gallop PM, Lian JB, Houschka PV. *N Engl J Med* 1981;306:1460-6.

### Hypertension: comparison of drug and non-drug treatments

SIR,—The meta-analytic review of hypertensive treatments by Dr Gavin Andrews and others (22 May, p 1523) is informative and necessary for the promulgation of effective non-pharmacological treatment of hypertension. It should, however, be noted that by differentiating treatment modality and effect size much information regarding the potential interactive effects of combined regimens is lost. Thus, the interpretation of Andrew's meta-analysis is limited in scope. It fails to consider the many instances where combining treatment techniques is both desirable and effective. Even in the case of drug treatment, the use of various non-pharmacological adjunctive techniques often potentiates the lowering of blood pressure. Furthermore, the effects of combined non-pharmacological treatment become even more important in light of typical compliance to drug therapy—that is, about 50%.<sup>1</sup>

The fact that Andrews *et al* support the use of non-pharmacological interventions for hypertensive patients is highly commended. Yet the approach physicians should take in treating mildly hypertensive patients is not answered solely by the analysis of individual treatment effectiveness. Efficacy of any kind of therapy is regulated by a number of factors above and beyond the specific technique. Therefore, the advocacy of a single regimen to decrease blood pressure in all patients is unwarranted. Whether or not weight reduction, yoga, muscle relaxation, exercise training,

biofeedback, salt restriction, or a combination thereof is most effective depends in part on the individual as well as the practitioner. Factors such as patient expectation, level of compliance, motivation, etc, comprise important variables which are considered all too infrequently.<sup>2</sup> Therefore, individualisation of treatment to the patient is advocated. This would include the integration of various treatment packages with individual patient characteristics. Of course, such a procedure requires more time, but improved effectiveness is the pay off. Whether this question of cost effectiveness is worth while is undoubtedly left up to the individual physician. After all, the treatment of choice must be integrated with his or her personality as well.

Evidence supporting the individualisation of treatment in areas outside hypertension, along with the authors' firm conviction that treatment is enhanced through the consideration of personality variables<sup>3-5</sup> (both of the patient and the physician), provided the impetus for this letter.

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<sup>1</sup> Foster SB, Kousch D. *Nursing Clinics of North America* 1981;16:331.

<sup>2</sup> Frank J. *Persuasion and healing*. Baltimore: Johns Hopkins University Press, 1973.

<sup>3</sup> Frank J. *American Journal of Psychotherapy* 1971; 25:350-61.

<sup>4</sup> Strupp HH. *Psychotherapy: Theory, Research, and Practice* 1978;15:314-7.

<sup>5</sup> Lazarus AA. *Psychotherapy: Theory, Research, and Practice* 1978;15:359-60.

### Do alcoholics recover?

SIR,—As Dr W H (7 August, p 443) points out, surely the question is not "Do alcoholics recover?" (3 July, p 3) but "How do (a considerable proportion of) alcoholics recover?" Clearly alcoholics "Do not . . . inevitably slide downhill . . . with few if any recovering"; but even nowadays (though less so than in the past) this utterly false stereotype still contributes to the lack of interest of doctors in the fate and management of alcoholics. Not surprisingly therefore many doctors may indeed "seldom meet recovered alcoholics," but those doctors (such as the members of the British Doctors' Group, referred to by Dr E D McConnell (7 August, p 443)) who assist problem drinkers and, of course, also the members of Alcoholics Anonymous all meet a great many recovered alcoholics. I have been privileged to observe the steady progress of quite a number of alcoholics treated in the Warlingham Park Unit in the 1950s<sup>1-3</sup> who have maintained their sobriety and with it a healthy, contented lifestyle (to the great benefit also of their families) for nearly three decades. Incidentally, the treatment results of these patients<sup>2</sup>—one-third recovered, one-third improved, one-third unchanged—are very much in line with those various studies referred to in your leading article.

Undoubtedly some alcoholics recover without treatment or, as reported by Orford and Edwards,<sup>4</sup> with the help of detailed, judicious, and informed advice—although these authors' finding that (mainly outpatient) treatment gave no better result than expert "advice" was obtained in a special group of alcoholics—that is, still living with their wives. Whether such results also apply to prognostically less